

REMARKS

Claims 1, 6, 7, and 25 remain under consideration. Claims 14 to 24 have been withdrawn from consideration.

The invention as set forth in claim 1 and the claims depending therefrom is a roll of prefabricated asphalt-based waterproof roofing membrane that consists essentially of: an asphalt saturated reinforcing substrate; a highly reflective non-asphalt based elastomeric coating layer; a polymer primer layer intermediate and bonded directly to a top surface of the top asphalt layer and a bottom surface of the highly reflective non-asphalt based elastomeric coating layer; and a release sheet. The asphalt saturated reinforcing substrate has a top asphalt layer overlaying and coextensive with a top major surface of the asphalt saturated reinforcing substrate and a bottom asphalt layer overlaying and coextensive with the bottom major surface of the asphalt saturated reinforcing substrate. The highly reflective non-asphalt based elastomeric coating layer consists essentially of a polymer binder material selected from a group consisting of acrylic-based elastomers and isocyanate-based elastomers, and a reflective pigment. The highly reflective non-asphalt based elastomeric coating layer has a top surface forming a top surface of the prefabricated asphalt-based waterproof roofing membrane that has an initial solar reflectance of at least 0.65 and a solar reflectance of at least 0.50 after three years. The polymer primer layer is intermediate and bonded directly to a top surface of the top asphalt layer and a bottom surface of the highly reflective non-asphalt based elastomeric coating layer, is impermeable to oils and other colored components of the top asphalt layer, and keeps the oils and other colored components of the top asphalt layer from exuding into the highly reflective non-asphalt based elastomeric coating layer and reducing the reflectance of the highly reflective non-asphalt based

elastomeric coating layer. The release sheet is on the top major surface or the bottom major surface of the prefabricated asphalt-based waterproof roofing membrane; is separable from the prefabricated asphalt-based waterproof roofing membrane; permits the prefabricated asphalt-based waterproof roofing membrane to be wound into the roll for packaging, storage, shipping, and handling without the bottom major surface of the asphalt saturated reinforcing substrate adhering to or discoloring the top surface of the highly reflective non-asphalt based elastomeric coating layer; and permits the prefabricated asphalt-based roofing membrane to be unwound from the roll for installation.

Claims 1, 6, and 7 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Urbanek (US Patent No. 5,434,009) in view of Zanchetta et al (US Patent No. 5,964,946).

Urbanek discloses an asphaltic roofing laminate which is fabricated on site and which may be reinforced by partially embedding a flexible mesh in a base asphaltic layer of the laminate (col. 4, lines 33-36). A barrier layer and a shield layer may be applied to one major surface of the base asphaltic layer (col. 4, lines 37 and 38) at the job site (col. 2, lines 36 to 39). The barrier layer should have barrier characteristics to mobile (oily) phases in the asphalt (col. 2, lines 47 and 48). The shield layer can be an acrylic polymer; should be ultraviolet light blocking (col.4, lines 52 to 55); and can contain titanium oxide.

However, unlike the prefabricated asphalt-based waterproof roofing membrane of the subject invention as set forth in claim 1, Urbanek discloses an asphaltic roofing laminate that is formed at the job site. Urbanek does not disclose a prefabricated asphalt-based waterproof roofing membrane roll good wherein: the prefabricated asphalt-based membrane roll good consists essentially of an asphalt saturated reinforcing substrate with top and bottom asphalt layers, a highly reflective non-asphalt

elastomeric coating layer consisting essentially of a polymer binder material selected from a group consisting of acrylic-based elastomers and isocyanate-based elastomers, a polymer primer layer intermediate and bonded directly to a top surface of the top asphalt layer of the substrate and a bottom surface of the highly reflective coating layer that is impermeable to oils and other colored components of the top asphalt layer, and a release sheet that is separable from the membrane and permits the prefabricated asphalt-based waterproof roofing membrane to be wound into the roll for packaging, storage, shipping, and handling without the bottom major surface of the asphalt saturated reinforcing substrate adhering to or discoloring the top surface of the highly reflective thermoplastic elastomeric sheet layer. Urbanek does not disclose or suggest a prefabricated asphalt-based waterproof roofing membrane roll good, such as that set forth in claim 1, wherein the prefabricated roll good has an initial solar reflectance of at least 0.65 and a solar reflectance of at least 0.50 after three years. Urbanek forms the Urbanek laminate in place at the job site and does not disclose or suggest a prefabricated asphalt-based waterproof roofing membrane roll good, such as that set forth in claim 1, which eliminates the need to form the laminate at the job site. Furthermore, Urbanek does not disclose or suggest a prefabricated asphalt-based waterproof roofing membrane roll good wherein a release sheet that is separable from the membrane permits the prefabricated asphalt-based waterproof roofing membrane to be wound into the roll for packaging, storage, shipping, and handling without the bottom major surface of the asphalt saturated reinforcing substrate adhering to or discoloring the top surface of the highly reflective thermoplastic elastomeric sheet layer. Thus, Urbanek fails to disclose or suggest the prefabricated asphalt-based waterproof roofing membrane as set forth in claims 1, 6, and 7.

Zanchetta discloses a bitumen-based waterproofing membrane sheet wherein the sheet is coated with granular material to protect the membrane from ultraviolet rays.

However, before applying the granular material to the sheet, exposed bitumen on a lateral edge section of the membrane sheet is first covered with a piece of protective tape which prevents any granular material from being deposited on the exposed bitumen beneath the tape and forms an improved edge sealing surface on the lateral edge section. During installation, the tape is removed to expose the bitumen for bonding the edge section to another waterproofing membrane sheet.

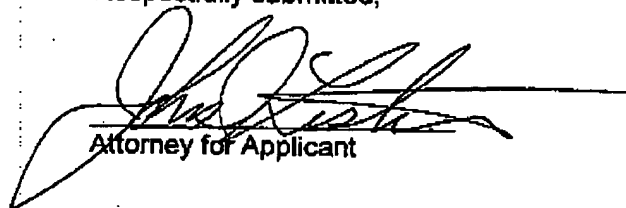
While Zanchetta discloses a bitumen-based waterproofing membrane that utilizes the application of a tape before the application of granules to form an improved edge sealing surface on the membrane, Zanchetta does not disclose or suggest the use of a release sheet, in combination with a prefabricated asphalt-based waterproof roofing membrane with a highly reflective top surface, to permit the prefabricated asphalt-based waterproof roofing membrane to be wound into a roll for packaging, storage, shipping, and handling without the bottom major surface of an asphalt saturated reinforcing substrate of the membrane adhering to or discoloring the top surface of the highly reflective thermoplastic elastomeric sheet layer of the membrane. Thus, even when considered together, Urbanek and Zanchetta fail to disclose or suggest the prefabricated asphalt-based waterproof roofing membrane as set forth in claims 1, 6, and 7. For the reasons set forth above, claims 1, 6, and 7 are patentable over Urbanek and Zanchetta and the allowance of claims 1, 6, and 7 is solicited.

Claim 25 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Urbanek (US Patent No. 5,434,009) in view of Zanchetta et al (US Patent No. 5,964,946) and Kiik et al (US Patent No. 6,872,440).

Kiik discloses a heat reflective coated composite, such as a roofing membrane (abstract), with a polymer binder shield layer that includes polyurea. However, Kiik fails to otherwise supplement the disclosures of Urbanek and Zanchetta; claim 25 is

patentable over Urbanek, Zanchetta, and Kiik for the same reasons discussed above in connection with claims 1, 6, and 7; and the allowance of claim 25 is solicited.

Respectfully submitted,



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